The Administrator signed the CAP 2000 final rule on Monday, March 15th. While we have taken steps to ensure the accuracy of this Internet version of this document, it's not the official version. Please refer to the official version in a forthcoming Federal Register publication or on GPO's Web Site. It should take about two weeks to publish the final rule. You can access the Federal Register on the Internet at: http://www.access.gpo.gov/su_docs/aces/aces140.html. When using this site, note that "text" files (txt) may be incomplete because they don't include graphics. Instead, select "Adobe Portable Document File" (PDF) files. Once the rule has been published, we will provide a copy of the Federal Register version on this web site.

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 9, 85, 86, 88 and 600

RIN #XXXX-XXXX

Control of Air Pollution From New Motor Vehicles; Compliance programs for new light-duty vehicles and light-duty trucks.

AGENCY: Environmental Protection Agency

ACTION: Final Rule

SUMMARY: The Environmental Protection Agency (referred to hereafter as "EPA" or "the Agency") proposed a new compliance assurance program (referred to as "CAP 2000") on July 23, 1998, at 63 FR 39653. This action adopts revised emissions compliance procedures for new light-duty vehicles and light-duty trucks contained in the NPRM. CAP 2000 simplifies and streamlines the current procedures manufacturers must follow to obtain pre-production emission certification of new motor vehicles. The new certification program provides the same environmental benefits as the current procedures while significantly reducing the certification cost for manufacturers, and giving manufacturers more control of production timing. EPA is also adopting a requirement that manufacturers test in-use motor vehicles to monitor compliance with emission standards. Manufacturers will test samples of in-use vehicles when they are approximately one and four years old. These test data will be used to improve the process which

predicts in-use compliance and will determine the need for further action by the Agency or the manufacturer to address any in-use emission compliance problems. CAP 2000 will be implemented beginning with model year (MY) 2001 vehicles. Manufacturers are allowed to voluntarily opt-in to the CAP 2000 procedures beginning with the 2000 model year. EPA estimates that overall, manufacturers will save about $55 million dollars a year as a result of today's final rule.

DATES: This rule is effective [insert date of publication in the FEDERAL REGISTER]. The information collection requirements contained in 40 CFR Part 86 and the amendments to 40 CFR Part 9 have been approved by OMB and are effective immediately. The incorporation of certain publications listed in the regulations is approved by the Director of the Federal Register as of [insert date of publication in the FEDERAL REGISTER]

ADDRESSES: Materials relevant to this final rule are contained in EPA Air & Radiation Docket number A-96-50, located at Room M-1500, Waterside Mall, 401 M Street, SW, Washington, DC 20460. The docket may be viewed at this location between 8:00 a.m. and 5:30 p.m., Monday through Friday. The telephone number is (202)260-7548 and the facsimile number is (202)260-4400. A reasonable fee may be charged by EPA for copying docket material.

FOR FURTHER INFORMATION CONTACT:
Linda Hormes, Vehicle Programs and Compliance Division, US EPA, 2000 Traverwood, Ann Arbor Michigan 48105, telephone (734)214-4502, E-mail: hormes.linda@epa.gov.

SUPPLEMENTARY INFORMATION:
Regulated Entities

Entities potentially regulated by this action are those which manufacture and sell motor vehicles in the United States. Regulated categories and entities include:

Category	Examples of regulated entities
Industry.....	New motor vehicle manufacturers.

This table is not intended to be exhaustive but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists the types of entities the EPA is now aware could potentially be regulated by this action. Other types of entities not listed in the table could also be regulated. To determine whether your product is regulated by this action, you should carefully

examine the applicability criteria in § 86.1801-01 of title 40 of the Code of Federal Regulations. If you have questions regarding the applicability of this action to a particular product, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

Obtaining Copies of the Regulatory Documents

The preamble and Technical Support Document are available electronically from the EPA Internet Web site. This service is free of charge, except for any cost you already incur for internet connectivity. The electronic version of this final rule is made available on the day of publication on the primary EPA Web site listed below. The EPA Office of Mobile Sources also publishes Federal Register notices and related documents on the secondary Web site listed below:

1. http://www.epa.gov/docs/fedrgstr/EPA-AIR/
2. http://www.epa.gov/OMSWWW/

(look in "What's New" or under the specific rulemaking topic)

Please note that due to differences between the software used to develop the document and the software into which the document may be downloaded, changes in format, page length, etc. may occur.

TABLE OF CONTENTS:

I. Introduction

Three programs are currently in place to ensure that automotive manufacturers design and build light-duty vehicles and light-duty trucks which comply with mandated emission standards for their useful lives (as prescribed in § 86.1805-01): certification, assembly line testing (known as Selective Enforcement Audits or SEAs) and recall. These programs are described in more detail in section I.A. of the Notice of Proposed Rulemaking (at 63 FR 39655).

In addition to these emission control programs, EPA shares responsibilities with three other Federal agencies in the conduct of three fuel economy programs: the Corporate Average Fuel Economy (CAFE) program, the Fuel Economy Labeling program (and attendant issuance of the annual Gas Mileage Guide), and the Gas Guzzler Tax program. These

programs were likewise discussed in some detail in the above-cited section of the Notice of Proposed Rulemaking (NPRM) for this rule.

The mutual desire of EPA and the automotive industry to streamline and improve upon these compliance programs fostered a productive regulatory development process culminating in the proposed regulation. One of the main elements of the proposal is a streamlined certification program structure which retains EPA's confidence in pre-production compliance determinations while reducing costs for manufacturers. To verify the compliance predictions made for certification, the final rule requires manufacturers to conduct testing of in-use vehicles and to report the results to EPA. The significant amounts of in-use data generated by this testing will enhance the Agency's recall program and can be used for studies of in-use vehicle emission control performance in general.[1] The in-use data will also obviate the need for most SEA testing.

Today's final rule incorporates comments received during the public comment period. Most of the comments received suggested minor wording or procedural changes. No fundamental changes to the basic structure of the CAP 2000 proposal have been made in the final rule. A discussion of certain comments received is contained in Section II below. The Response to Comments document in the Docket contains a detailed discussion of other comments received and EPA's responses.

II. Content of the Final Rule

Unless otherwise indicated below, the discussion presented in the Preamble to the Notice of Proposed Rulemaking published at 63 FR 39653 is applicable to this final rule.

A. Certification Requirements

1. Durability Requirements

Durability Groups. EPA is adopting its proposal for manufacturers to divide their motor vehicles into groups called "durability groups" which include vehicles which are likely to exhibit similar exhaust emission deterioration over their useful lives, based on those characteristics of current-technology vehicles that most significantly affect the deterioration of emission control over time. Durability groups are based on engine type, fuel type, fuel system,

---

[1]Important in-use data are also available from other sources, including emission control repair statistics and I/M test results.

catalyst construction, type of precious metals used in the catalyst, and relative engine/catalyst size and loading rates.

EPA estimates that based on the current vehicle product offering, the number of required durability demonstrations under CAP 2000 will be reduced by as much as 75 percent, a substantial savings for manufacturers. However, the Agency believes that the new durability grouping criteria, the requirement for testing the worst case durability vehicle, and the in-use verification program (also discussed below) would comprise a more accurate and effective emission control program than the current procedures and should result in significant environmental benefits.

To allow manufacturers flexibility in assigning durability groups, EPA is adopting provisions allowing manufacturers to use criteria other than relative engine/catalyst size and loading rates, provided that the criteria result in at least as many groups and do not group together dissimilar vehicles.

Durability Demonstrations. The Agency is adopting as proposed its durability demonstration regulations. Each manufacturer (except small volume manufacturers and test groups which have special provisions discussed below) will be required to design a durability process which predicts the in-use deterioration of the vehicles it produces. The durability process will be applied to a worst-case durability vehicle configuration as selected by the manufacturer. While the Agency expects manufacturers to act in good faith in designing adequate durability processes, the Agency requirement to obtain advance approval for these procedures should assure that well-designed programs are implemented.

In-use Feedback to Durability. Another important feature of today's rule is the requirement that manufacturers perform in-use testing on candidate in-use vehicles selected under the provisions of the in-use verification program described in section II. B. below. These in-use verification data will provide feedback information to manufacturers which will be used to improve their durability processes, if necessary.

EPA may also withdraw its approval to use a durability procedure for future certification if the Agency determines that the procedure does not accurately predict in-use emission levels.

Using aged emission control components to demonstrate compliance. EPA is adopting its proposal allowing manufacturers to demonstrate both durability and emission compliance by testing emission data vehicles installed with

components aged to the equivalent of full useful life. The test data will represent the useful life emission levels for those vehicles, and can be compared directly to the emission standards without the use of deterioration factors. This certification compliance option will save manufacturers the cost of building and accumulating mileage on separate fleets of durability test vehicles. This process uses the same aging techniques as those used to calculate DFs in the normal durability program. Furthermore, the effect of using aged components directly on an emission data vehicle (EDV) is equivalent to applying a deterioration factor to an EDV which is calculated from those same aged components. EPA is also adopting its proposal to allow aged components to be used on more than one vehicle, under certain conditions.

The Agency is also adopting its proposal that the configuration with the highest expected level of in-use deterioration be selected as the durability data vehicle (DDV) configuration.

Evaporative/Refueling Durability Procedures. Evaporative family durability procedures were not proposed to be changed, but EPA requested and received comments about the criteria for designating evaporative/refueling families. Based on those comments, EPA is adopting some minor changes to the definition of evaporative/refueling family, described in more detail below.

2. Emission Compliance Requirements

Test Groups. EPA is adopting its proposal that manufacturers subdivide durability groups into units called "test groups," for the purpose of demonstrating compliance with emission standards. One certificate of conformity with the emission standards will be issued per test group. Vehicles within a test group will have the following common elements: applicable emission standards, engine displacement, number of cylinders, and arrangement of cylinders (e.g., in-line or V-shaped). EPA is adopting a number of provisions which allow manufacturers to further divide test groups to meet their needs without advance Agency approval. The Agency will also consider requests to combine test groups.

Emission Testing. The Agency is adopting its proposal that manufacturers test one emission data vehicle (EDV) in each test group. The EDV configuration would be the configuration expected to generate the worst case exhaust emissions within the test group.

One EDV per durability group will be required to be tested to demonstrate compliance with cold temperature carbon monoxide requirements, selected by the manufacturer as the worst case EDV within each durability group.

Evaporative/refueling compliance. A separate certificate of conformity will be issued for each evaporate/refueling family within a test group.

Durability and Emission Data Carryover. "Carryover" is a concept that allows the use of data generated in a previous model year to be used in a subsequent model year in lieu of additional testing. The Agency is adopting its proposal to allow carryover of durability and emission data when the manufacturer determines, using good engineering judgment, that the new vehicle configuration is capable of equivalent or superior emission or durability performance.

EPA is adopting its proposal disallowing the carry over of in-use verification test data. This is discussed separately in section II. B. below.

Use of Development Vehicles for EDVs. Currently, the regulations require that a unique vehicle be built to represent the EDV. This requirement was established to assure representativeness of the test results of the EDV. EPA established requirements that the vehicle have appropriate maintenance and sufficient representative mileage accumulation to stabilize emissions. Manufacturers typically run a second fleet of similar vehicles called "development vehicles" which they use to develop the production calibrations. These vehicles may have representative mileage accumulation and appropriate maintenance histories. The Agency is adopting its proposal that manufacturers may optionally use vehicles originally built to be development vehicles as EDVs for official certification testing.

The Agency believes that development vehicles can be representative vehicles which would generate accurate emission levels. The portability of the calibration from one prototype vehicle to another would be assured by the restriction that a development vehicle which was used to develop the calibration used on the EDV may not be used as the EDV itself.

Accept Statements of Compliance for Certification Short Tests. The certification short test was developed to assure that vehicles complying with the FTP exhaust emission standards could be accurately tested at State Inspection and Maintenance (I/M) test facilities without the need for special test procedures. The purpose of the certification short test is also to assure that manufacturers design their vehicles to comply with Inspection/Maintenance (I/M) tests used throughout the country and to account for the variation in test fuels and waiting times that vehicle owners might encounter.

The Agency is adopting its proposal to accept a

statement of compliance to satisfy the certification short test compliance requirements (see §§ 86.094-8 and 86.094-9). The certification short test has been fully implemented since the 1996 model year. EPA's review of the CST data submitted by manufacturers thus far has indicated that test results are significantly beneath the standards, with values typically near zero. There have been no instances of test vehicles failing the standards.

Evaporative/Refueling Emission Testing. The Agency is retaining the current evaporative/refueling testing requirements. One vehicle in each evaporative/refueling family (the worst case EDV with the worst case evaporative and fuel tank hardware installed) would be tested for compliance with the evaporative and refueling requirements subject to the phase-in requirements of the applicable model year.

3. Confirmatory Testing

Manufacturer-performed confirmatory testing. The Agency is adopting the proposed requirements for certification and fuel economy confirmatory testing. Manufacturers will confirm most of their tests at their own facilities, if any of the following criteria originally proposed are met: (1) the vehicle version has previously failed a standard; (2) the vehicle exhibits high certification levels; (3) the fuel economy value of the vehicle is higher than expected; (4) the fuel economy value is close to a Gas Guzzler Tax threshold value; or (5) the fuel economy value is at a level which creates a potential vehicle class fuel economy leader. EPA will provide guidance to manufacturers on these criteria. Test results from the original manufacturer’s test must be submitted to the Agency before any manufacturer confirmatory testing is conducted. The Agency will then indicate to the manufacturer whether the Agency will be performing any random or other confirmatory testing. Vehicle configurations selected for confirmatory testing by the Agency will not be required to be tested under the manufacturer confirmatory test program. Manufacturer confirmatory tests will be considered "official" and will be used in certification compliance determinations and fuel economy calculations. Any confirmatory tests performed by EPA will be considered official.

The Agency is also adopting its proposal that manufacturers conduct retests whenever the manufacturer’s original fuel economy test result and the manufacturer’s confirmatory result fail to correlate satisfactorily. The criteria for satisfactory correlation is the three percent difference in fuel economy currently used in EPA’s

confirmatory test program. In lieu of conducting retests the manufacturer may accept the lowest fuel economy data for the purpose of calculating the fuel economy values. This retesting procedure assures that representative fuel economy data are generated during the manufacturer-funded confirmatory test program. The retest criteria are the same that the Agency has been employing on EPA retests. These have proven satisfactory at safeguarding the integrity of the fuel economy values at a reasonable cost in terms of additional tests conducted.

Conditional Certification pending Confirmatory Testing. EPA is adopting its proposal to allow conditional emission certification for a test group (contingent upon manufacturer request and subject to Agency approval) when the confirmatory test scheduled for testing at the EPA facility has not yet been completed. To be eligible, the manufacturer must attest, and EPA have reason to believe, that the vehicle awaiting confirmatory test will ultimately comply with the standards when tested.

The condition for certification is the same as that for the current "alternate procedure" running change provisions (see § 86.082-34). If the Administrator determines that the confirmatory test results in noncompliance with any standard, then the manufacturer will be so notified. Upon notification of this determination, the manufacturer must immediately suspend production of all vehicles covered by this certificate (or such fraction of the vehicles covered by the certificate that the Administrator determines to be affected) and the certificate of conformity will be suspended (pending a hearing). As a further condition of the certificate, the manufacturer must agree to recall all vehicles which the Administrator determines to be in noncompliance with the applicable standards, and remedy such noncompliance at no expense to the owner.

4. Fuel Economy

Conditional Fuel Economy Values Pending Confirmatory Testing. In addition to conditional certification, EPA is adopting its proposal allowing the use of conditional fuel economy labels. Manufacturers are permitted to calculate and use fuel economy labels prior to the completion of scheduled EPA confirmatory testing, provided that certain conditions are met.

Once the confirmatory testing is completed, the manufacturer must recalculate, if necessary, all the affected fuel economy label values. The recalculated label values must be used for labeling on future production under either of the following circumstances:

1) If the newly calculated label value is at least 0.5

mpg lower than the original value, the manufacturer must use the recalculated label value and annual fuel cost on the labels placed on all future vehicles produced 15 days, or more, after the completion of the confirmatory test.

(2) If the newly calculated label value is at least 0.1 mpg lower than the original value, the manufacturer must use the recalculated label value to determine Gas Guzzler Tax liability. The tax paid to the IRS must reflect the recalculated value for all vehicles produced. The gas guzzler tax statement required under the current provisions of 40 CFR 600.307-95 (f) to be placed on the fuel economy label shall reflect the recalculated values on all future vehicles produced 15 days, or more, after the completion of the confirmatory test.

All confirmatory test results must be used in CAFÉ calculations.

EPA is adopting its proposal requiring manufacturers to submit a copy of the CAFE calculations directly to the National Highway Traffic and Safety Administration (NHTSA) concurrent with the submission to EPA.

5. Small Volume Provisions

EPA is adopting its proposal to increase the number of sales which define small volume manufacturers to U.S. sales of less than 15,000 per model year (including light-duty vehicles, light-duty trucks, heavy-duty vehicles and heavy-duty engines). Similarly, EPA is adopting its proposal to allow any manufacturer to use small volume certification procedures for any test groups, provided that the combined U.S. sales are below 15,000 units per model year.

Any certification options provided under CAP 2000 for large volume manufacturers would be available to small volume manufacturers (e.g., bench-aged components for durability, etc.).

6. Information Requirements

Application for certification. EPA is adopting its proposal that manufacturers submit applications for certification on the basis of durability groups. The application will be submitted in two parts:

Part 1 consists of general information about the manufacturer and the entire product line, durability group descriptions, evaporative/refueling family descriptions, OBD information and information specific to each test group. This is the information generally needed by EPA to make certification decisions.

Part 2 is information which is primarily needed by EPA for post-certification compliance purposes. It includes such information as part numbers of each emission related component for each engine code, certain calibration

specifications, owners manuals, service manuals and technical service bulletins. This information is necessary for the Agency to perform its in-use compliance activities such as identifying mis-builds (non-certified vehicle configurations), evaluating manufacturer defect reports, and conducting in-use recall testing programs.

Timing of information submissions. Part 1 of the Application is to be submitted prior to certification and Part 2 is to be submitted by January first of the applicable model year (e.g. a model year 2001 Part 2 Application would be due by 1/1/2001). Any updates to the Part 1 will also be due by January first of the model year.

A final, end-of-model-year Application update (including any updates to Parts 1 and 2 reflecting any running changes occurring since January 1 is required to be submitted by January first of the following model year (for example, the final Application update for model year 2001 would be due by 1/1/2002).

Based on comments received, EPA is increasing the time allowed to submit the Part 2 application from 30 days to 60 days for those test groups certified close to the end of January 1 of the applicable model year.

B. In-Use Testing Requirements

1. Overview. EPA is adopting the in-use testing program generally as proposed. The program consists of two basic categories of manufacturer-funded in-use testing: (1) in-use verification testing of vehicles representing virtually all of the test groups produced by each manufacturer in each model year and, (2) in-use confirmatory testing consisting of more rigorous testing of test groups or subsets of these test groups (limited to transmission types) which, during the in-use verification testing, demonstrated potentially high emissions.

2. In-Use Verification Testing (IUVP). This element of the program will provide the Agency and the industry with emission data feedback from vehicles driven under real-world conditions. The data generated from the IUVP will be used to assess and improve the effectiveness of the manufacturer's certification durability and emission demonstration processes. In addition, the IUVP data will be used to determine the need for further manufacturer funded in-use testing (In-Use Confirmatory Testing) which may be used by the Agency in determining whether an emissions recall is necessary.

The basic elements of the proposed IUVP are low mileage (10,000 mile minimum vehicle mileage, approximately one year of operation) and high mileage (50,000 mile minimum mileage

and approximately four years of operation) emission testing of in-use vehicles. These mileage and age test points were selected to provide feedback to the Agency and the industry on the emission performance of vehicles at both an early point in their operating life (to allow early identification of any problems which occur in production or early in the life of the vehicle to minimize the emission impact of the defect or deficient design), and at a point well into the vehicle's statutorily-defined useful life (to identify and correct any problems which occur only after extended in-use operation) but not at such a high mileage that high emitting vehicles would not be identified until the end of their useful life. The total number of vehicles a particular manufacturer would be required to test for the IUVP under the requirements of this proposal would be dependent upon the number of test groups in the manufacturer's product line and the number of sales within those groups. The sample sizes required for the low and high mileage test programs and test group sales volumes are intended to reflect the increased potential for emission contribution by high production test groups, the increased likelihood of problems occurring as vehicles reach higher mileage, and the desire of the Agency to minimize the resources required to conduct the program.

Additionally, EPA is adopting its proposal that a manufacturer may increase the required sample size specified for a specific IUVP test group sample with prior EPA approval prior to the initiation of the additional testing. The Agency believes that prior approval of an increase in sample size is needed to prevent the unrestrained addition of vehicles which could mask or dilute potential emission problems.

EPA was requested to change the proposed requirement that one high-mileage vehicle in the in-use verification fleet have at least 75,000 miles to be at least 75 percent of full useful life. This purpose of the request was to harmonize with the California ARB proposed regulations, and EPA has done so in the final rule.

EPA is adopting its proposed regulations for vehicle selection and procurement protocols. These procedures and protocols provide assurance that the in-use vehicles will have experienced typical real-world use and maintenance, and will screen out only those vehicles which are tampered, unsafe to test, or are in such a condition that restoration to a test-ready condition would be too costly. To preclude underestimating the emissions of the in-use fleet through possible climate-related bias (the Agency believes vehicles operated primarily in warm weather areas may be subject to

less harsh durability conditions than those operated in cold weather), and on the basis of a comment received, EPA has modified its proposal requiring that a certain number of vehicles in each sample be procured from north of the 40 degree parallel line. Instead, those vehicles must be procured from locations with a heating degree day 30 year annual average equal to or greater than 4000. The reasons for this change are discussed in section D.1. below.

As discussed above in section II.A., in the event that the IUVP data from a test group sample at either the low or high mileage test point exceed certain criteria, EPA is also requiring that manufacturers perform an analysis explaining why their durability processes are or are not still capable of accurately predicting in-use performance. EPA is also adopting as proposed its provisions for the in-use testing of small volume manufacturers/test groups and alternative fueled vehicles.

EPA is adopting its proposal that the FTP and the US06 portion of the supplemental FTP (SFTP) be performed on each in-use vehicle tested. Manufacturers will determine the composite in-use SFTP emission level by combining the in-use US06 and in-use FTP test levels with the test level from the pre-production certification air conditioning test (without deterioration factors applied). The A/C portion of the supplemental FTP is an extremely resource intensive test because of the test cell requirements (a special environmental chamber). In evaluating the utility of the data which would be obtained versus the high cost of conducting an in-use A/C test cycle as part of the in-use verification program, EPA decided not to require testing on the A/C cycle. Included in this evaluation was EPA's belief that for emissions deterioration purposes, the US06 portion of the test can be directionally predictive of the results of the A/C cycle. EPA may always conduct its own in-use testing to confirm compliance, and if future indications are that noncompliance with the A/C cycle may be an issue, can revisit this decision in a future regulation.

EPA is adopting its proposal requiring a single in-use evaporative test and on-board refueling loss test per evaporative/refueling family at both the low and high mileage test points. As of this final rule, ongoing evaporative test procedure streamlining efforts between EPA, California ARB and industry have not led to a unified procedure. Therefore, EPA is adopting its proposed in-use evaporative/refueling testing requirement using the test procedures described in subpart B of part 86.

Because EPA's emission standards currently apply at high altitude as well as low altitude, EPA is adopting its

proposal that one vehicle per test group be tested under high altitude conditions for FTP. EPA is proposing to require this testing only at the high mileage test point in order to minimize the expense and facility constraints, if any, associated with this testing.

3. Manufacturer Funded In-Use Confirmatory Testing. Today's final rule also includes regulations which create a manufacturer funded in-use confirmatory testing program. These are unchanged from the proposed rule. This program requires manufacturers to conduct additional in-use testing of a test group when the IUVP data for the test group exceeds a specified trigger level. Additionally, EPA could target testing of a transmission-type subset of a test group if emissions shown by the entire test group sample meet the specified triggering criteria.

The criteria that will trigger confirmatory testing (a mean of 1.30 times the standard with a 50 percent or greater failure rate for the test group sample at either the low or high mileage test point) are based upon the emission standards to which the test group was originally certified.

The Agency intends to periodically review and, if necessary, revise these criteria, and intends to do so after it has gathered sufficient information to support any revisions.

C. Other Requirements and Topics

1. Fees

EPA is adopting its proposal to continue collecting a fee on a per-certificate basis. Because the test group will become the unit of certification, a fee will be collected for each test group to be certified. The new fee schedule will be the same as proposed:

Federal signed:	$27,211
California only signed:	$ 8,956
Fed only unsigned:	$ 2,738
Cal only unsigned:	$ 2,738

EPA is adopting its proposal to retain the waiver provision in the current fee regulations when the fee exceeds 1% of the aggregate projected US sales of vehicles covered by the certificate (§ 86.908-93).

2. Miscellaneous corrections and changes.

EPA is adopting other requirements as proposed, including language prohibiting crankcase emissions from all light-duty vehicles, rather than from Otto-cycle and methanol-fueled diesel light-duty vehicles, the elimination of high altitude exemption provisions for those vehicles and trucks meeting specific design limitation criteria (see §§

86.094-8(h) and (i)), and a revision making the Agency's defeat device policy applicable to all types of fuels rather than just to gasoline.

3. Incentives to Encourage Better In-use Emission Performance

The Agency is adopting its proposed regulatory language that will allow the Agency to waive or modify certain other regulatory requirements to allow the structuring of an incentive program. In the NPRM, the Agency requested and received a number of suggestions regarding potential incentive rewards, and how an incentive program could be structured (discussed in more detail in the Response To Comments document in the docket). EPA will continue to work with interested parties in developing an effective incentive program.

4. Cross references in other EPA regulations

EPA has amended regulatory language which refers to Subpart A of Part 86 so that it also references Subpart S. Regulations affected include Part 85, subparts B, G, H, L, P, Q and R of Part 86, Part 88, and Part 600. Also, each part or subpart which includes the terms "engine family" and/or "engine control system" has been amended to clarify that those terms can be construed to mean "test group" or "durability" group in the context of Subpart S regulations.

D. Changes from the Proposed Rule

EPA is adopting as final its proposed rule, with a few minor changes and corrections. The most significant changes are discussed below. A more detailed discussion about the comments received is in the Response to Comments document in the docket for this rule.

1. <u>40 degree latitude requirement for in-use verification vehicle procurement:</u>

EPA proposed that at least a certain number of vehicles in each test group be procured from north of the 40 degree parallel line to preclude underestimating the emissions of the in-use fleet through possible climate-related bias. The 40 degree north latitude requirement contained in the proposed regulations was intended to address the Agency’s belief that vehicles operated primarily in warm weather areas may be subject to less harsh durability conditions than those operated in cold. The 40 degree line extends across the United States from Cape Mendocino, CA to Trenton, NJ. Major metropolitan areas in this region account for about 24% of the U.S. population. Vehicles could be procured

from any area above the 40 degree latitude line. While this criterion captures a significant portion of cool weather areas, it did exclude a few major metropolitan areas which EPA would consider to be cool and would not wish to exclude from participation in the in-use verification program. Since the proposal, EPA has determined that there is a more scientifically-based method to ensure the acquisition of cooler-climate in-use vehicles, which will allow for the inclusion of previously excluded areas, and conversely, will not exclude any significant geographic areas where in-use vehicle procurement would likely occur. This method involves using readily available climate data known as "annual average heating degree day" (HDD) data. This data is compiled by various agencies, including the National Climatic Data Center (NCDC) of the National Oceanic and Atmospheric Administration (NOAA) and the Energy Information Administration (EIA) of the Department of Energy (DOE), and is readily available from these Agencies, both electronically and in hard copy. The Department of Energy, defines a heating degree day as "the number of degrees per day that the daily average temperature (the mean of the maximum and minimum recorded temperatures) is below a base temperature, usually 65 degrees Fahrenheit, unless otherwise specified....".

Instead of procuring vehicles from above the 40 degree N latitude line, manufacturers will instead be required to procure vehicles from areas with at least 30 year annual average HDDs of 4000. Four thousand was chosen as the criterion because limiting the criterion to areas with higher annual HDDs (for instance, 5,000) would exclude some major metropolitan areas that would have been covered with the 40 deg. latitude criterion and which EPA considers to be cooler climate areas, such as New York City, Newark, NJ, Seattle, WA, and Portland, OR., which the Agency did not intend to exclude. In fact, the 4000 annual HDD criteria will now include formerly excluded major metropolitan areas as well, such as the Baltimore-Washington corridor. Overall, the area of the United States covered by the criteria is more extensive than the area defined by the 40 degree latitude line and will ensure that in-use test data is obtained from vehicles exposed to harsher weather. Additional major metropolitan are now included in Missouri, Illinois, West Virginia, Colorado, Utah, Kansas, Arizona, New Mexico, Oklahoma, and Kentucky. Major metropolitan areas in this region account for about 30 percent of the population. This change is also responsive to a comment received, discussed in more detail in the response to comments document. Accordingly, EPA is revising its

regulations.

2. NLEV and CAP 2000: The California ARB has adopted a regulation parallel to CAP 2000. This will supercede the current ARB regulations which apply to NLEV-certified vehicles. Accordingly, EPA has modified the NLEV regulations in subpart R of part 86 to accommodate the incorporation of the California ARB CAP 2000 regulations into the NLEV certification process.

An incorrect cite was inadvertently given in section 86.1801-01 of the proposed regulatory language, which referred the reader to Subpart A for NLEV requirements. This has been corrected.

Regulatory language contained in § 86.096-30 pertaining to NLEV certification was inadvertently omitted in CAP 2000 and has been added back under section 86.1848-01.

3. High Altitude in-use testing:

The preamble language for the NPRM incorrectly stated that EPA was not proposing to include the results of high-altitude in-use verification testing in the data to be used to determine if a test group met the 1.30 times the standard criteria (modified from the 1.3 in the proposed rule to preclude rounding errors) which triggers manufacturer in-use confirmatory testing. The proposed regulatory language did reflect the Agency's intention to include high altitude data in the calculation. The inclusion of high altitude data is appropriate given that the emission standards are "all altitude," which require compliance to the same numerical standard regardless of altitude.

4. Regulatory language section numbering: Comments were favorable about the general layout and numbering scheme in the proposed rule. EPA is retaining this layout, but has renumbered (but not reordered) a portion of the final regulatory language to leave some blank "Reserved" sections. Doing so gives the Agency more flexibility in accommodating any future regulations and is in keeping with the Administration's "Plain Language" directive which suggests that Agencies leave reserved sections in new regulations for that purpose.

5. Evaporative and Refueling durability procedures. A commenter requested that EPA clarify its language on the service accumulation methods for both evaporative and refueling durability procedures[2]. Specifically, it was requested that EPA allow bench aging procedures as an alternative durability method. While EPA believes that the proposed language allows for such methods, language

[2]Ref. comments

specifically permitting bench aging for evaporative and refueling durability procedures has been added to the final rule for clarity.

6. High altitude certification testing for evaporative and refueling compliance. The proposed regulations incorrectly included SFTP testing at high altitude as part of the evaporative/refueling test requirements. Because SFTP standards are not applicable at high altitude, the final rule has deleted the requirement for SFTP testing.

7. Stabilized vehicle requirements. The proposed regulatory language allowed manufacturers to consider vehicles with 2,000 miles accumulated on them as "stabilized" for emission testing purposes. A commenter requested the EPA clarify that this is a minimum mileage[3]. Because this was EPA's intention, EPA has modified the language accordingly.

8. Evaporative/Refueling Family Determination.

Both during the development of the NPRM and in comments received after the proposal, EPA was requested to revisit the regulatory criteria for determining evaporative/refueling families. EPA is adopting some of these suggestions in the final rule. In particular, it is adding the criterion of fuel tank composition, and deleting the criteria of fill limiter system, vapor/liquid separator, vapor hose diameter, canister location, and onboard diagnostic hardware and calibrations. EPA believes that the eliminated criteria are calibrational in nature and have less impact on the durability of the evaporative/refueling system. These changes are not expected to significantly increase or decrease the number of evaporative/refueling families, thus no change is being made to the cost analysis.

9. Evaporative/refueling in-use verification testing.

In the preamble to the NPRM, EPA inadvertently stated that the in-use verification testing for evaporative/refueling emissions would not begin until the 2004 model year. The proposed regulatory language, which is correct, requires evaporative/refueling in-use testing to be performed on 2001 model year vehicles for the high mileage testing (50,000 miles/fourth year of service, meaning that the first testing will not occur until the 2004/2005 calendar year time frame). Because EPA has delayed implementing all low mileage in-use testing until the 2004 model year, this will provide a number of years of lead time for manufacturers to acquire or arrange for the necessary evaporative/refueling testing facilities.

---

[3]Ref. comments

E. **Comments relating to EPA's legal authorities and factual basis for CAP 2000**

EPA received comments from two organizations[4] challenging whether EPA has met its statutory obligations and claiming EPA failed to provide a factual basis for the CAP 2000 proposal. The following discussion details the specific comments and EPA's responses.

1. Comment:

Commenters suggested that EPA's proposal fails to establish methods and procedures for testing, "by regulation," as required by section 206(d) of the Clean Air Act. Commenters claim that to be consistent with section 206, EPA must either aggregate the manufacturer-specific test procedures in the certification regulations it proposes for public comment, or require that manufacturer-specific test procedures be developed by regulation on a case-by-case basis only after public notice and opportunity for comment.

EPA's response:

Section 206(a)(1) states that the Administrator shall test, or require to be tested in such a manner as deemed appropriate any new motor vehicle or motor vehicle engine submitted by a manufacturer to determine whether such vehicle or engine conforms with EPA emission standards. Section 206(d) requires that EPA issue regulations that establish methods and procedures for making tests under section 206.

The regulations proposed by EPA would require that manufacturers develop programs demonstrating the durability of their emissions control systems, as part of demonstrating compliance with applicable emission standards. The regulations establish the criteria for EPA approval of a durability program, and provide for required in-use testing to check on the accuracy of the durability demonstration. EPA's proposed regulations describe design requirements each manufacturer's durability program must satisfy for EPA approval. Manufacturers are required to show that their durability processes are designed to cover a significant majority of deterioration rates expected by vehicles in actual use. These durability demonstration programs are used in the certification process to establish the general rate of emission deterioration a similar group of vehicles are expected to experience over time. This rate of deterioration is applied, via deterioration factors or other

[4]The Ethyl Corporation and Envirotest.

means, to data generated from emission test vehicles within the durability group to demonstrate whether a vehicle will meet emission standards over its useful life. In essence, EPA's proposed regulations would establish a case-by-case, adjudicatory process and criteria for acceptance or rejection of a manufacturer's durability program. Commenters's claim that this is unlawful under section 206(d), and that EPA's regulations must themselves contain the specific details of each manufacturer's durability program (whether adopted in a single, aggregate rulemaking, or future case specific rulemakings). The issue raised by commenters is therefore whether EPA may reasonably exercise its authority under section 206(d) to establish an adjudicatory type procedure as proposed.

Whether section 206 authorizes or prohibits such agency action is a matter of statutory interpretation. The first question is whether Congress has directly spoken to this issue, such that Congressional intent is clear on this specific matter. If the intent of Congress is clear regarding a statutory provision, the Agency must follow that intent. If Congress' intent is not clear on this specific issue, then the question is whether EPA's interpretation of section 206(d) is a reasonable way to implement the authority delegated in that provision. Chevron v. NRDC, 467 U.S. 837, 842 to 844 (1984). Traditional tools of statutory construction are used to answer these questions. Id.

This issue can be seen as two distinct questions. The first is whether establishing methods and procedures by regulation requires that all the specific details related to testing must be contained in the regulations themselves, prohibiting establishment of an adjudicatory process to determine these specific details. The second question is whether a durability demonstration program is part of "making tests" subject to the requirements of section 206(d).

For the first question, the terms used by Congress, "establish methods and procedures," are not defined in the Clean Air Act. These terms are general in nature, and can be readily interpreted as covering a broad range of agency action. "Methods" and "procedures" would encompass both detailed prescriptions of how to conduct a test, as well as broad general provisions, such as a requirements that testing be conducted using good engineering practices. These terms are broad enough in nature to include a process for future determination of the specific details of a test program, based on submission of a proposed program for EPA review according to pre-set criteria. The term "establish" also appears general enough to include both the

establishment of detailed specifics at one time, as well as establishment of a process to set detailed specifics at a future point. The text of section 206(d) does not appear to indicate a clear congressional intent to prohibit the adjudicatory approach proposed by EPA, but instead employs terms that are broad and general in nature, allowing a variety of potential ways to establish methods and procedures for testing. The legislative history is limited, and does not provide any indication of a contrary congressional intent. Clean Air Amendments of 1970, Conference Report No. 1783, 91st Congress, 2d S (1970).

In this case, Congress did not express a clear intent that EPA may not exercise its authority under section 206(d) by setting up an adjudicatory process in the regulations. Instead, Congress's grant of authority provides EPA with substantial discretion in how to "establish methods and procedures" for conducting tests under section 206(d). Since Congress has not specifically addressed the question at issue, EPA 's interpretation of this grant of authority should be upheld if it is a reasonable way to implement Congress' intent. Chevron at 844.

The adjudicatory process set up by EPA's regulations is an efficient way to benefit from each manufacturer's expertise and knowledge of the durability of their vehicles. For example, manufacturers will be able to tailor their vehicle aging procedures to the specific details of the hardware used on their vehicles, and the way it is expected to deteriorate over time, as well as any unique driving and usage patterns of their customers, and thus account for the effect that these hardware and usage patterns have on emission deterioration and emission control system designs. As discussed in the NPRM (63 FR 39660, (July 23, 1998)), EPA believes that the resulting manufacturer durability programs should improve the effectiveness of EPA's vehicle compliance programs, by improving the ability of the new motor vehicle certification program to predict and account for in-use durability and deterioration of the emissions control system.

As described in the NPRM, EPA has been approving manufacturer alternative durability programs under RDP-I for several years. Two major types of durability processes have emerged from the RDP-I experience: whole vehicle mileage accumulation cycles and bench aging procedures. The whole vehicle aging concept involves driving vehicles on a track or dynamometer on an aggressive driving cycle of the manufacturer's design. The bench aging procedures involve the removal of critical emission components (such as the catalyst and oxygen sensor) and the accelerated aging of

those components on an engine dynamometer bench. Through the approval process, EPA has been requiring that manufacturers compare the catalyst operating temperatures during the AMA[5] and during the proposed durability method as well as average speeds, acceleration rates and the like for whole vehicle methods. In evaluating the comparisons, EPA believes that the programs are more effective than the current program at predicting the deterioration that occurs in actual use. EPA believes that allowing manufacturer-specific durability programs to continue is appropriate.

As it has in the past under the RDP-I program, EPA will require that manufacturers provide data prior to certification showing that the aging procedures would predict the deterioration of the significant majority of in-use vehicles over the breadth of their product line which would ultimately be covered by this procedure for both whole vehicle and bench-aging durability methods. Manufacturers have varying sources of data available, such as emissions data, driver survey data, catalyst temperature history data and catalyst conversion efficiency data. Generally these data are compared to manufacturer in-use data to determine how broadly the deterioration factors reflect the overall vehicle fleet. EPA determines, based on these data whether to approve the durability process. EPA believes that the various whole vehicle and bench aging programs are more effective than the current program at predicting the deterioration that occurs in actual use.

EPA also believes an adjudicatory process is a more efficient method of reviewing and approving or rejecting such durability programs, avoiding the time and resources that would be necessary to promulgate by rulemaking each manufacturer-specific durability program. EPA believes that the adjudicatory process proposed and adopted in this rule is a reasonable way to establish manufacturer-specific durability programs that are expected to provide better information about in-use emissions deterioration, for use in making certification decisions.

EPA's interpretation of the statute is consistent with prior EPA interpretations of section 206. For example, EPA has never interpreted section 206 as requiring promulgation of every aspect of each manufacturer durability program. In the past, the regulations have set up a durability process that required manufacturers to accumulate mileage on a pre-production vehicle over a prescribed driving cycle from 100,000 miles as a way to simulate deterioration over the

---

[5]The driving schedule prescribed in Appendix IV of Part 86.

useful life. The regulations described the driving course, the speed for each lap, stops, and similar details. The regulations do not describe when drivers must be changed, how much driving per twenty-four hours, leaving many other details for case-by-case decision making by EPA. Another example is 40 CFR § 86.090-27, Special Test Procedures. Under this section, EPA interpreted section 206 to allow the Administrator, based on a written application from a manufacturer, to prescribe tests procedures, other than those prescribed in the CFR, for a vehicle not susceptible to satisfactory testing in 40 CFR Part 86. This is an adjudicatory process where the EPA approves alternative testing in advance, without promulgated minimum requirements.[6] Another example is EPA's durability regulations for certification of light-duty trucks, which have permitted manufacturers to use their own methods, based on good engineering judgment, to determine DFs, subject to review and approval by EPA. (See § 86.094-24(c)(2)). EPA set up this adjudicatory process in the regulations, providing future case by case EPA approval of the results of a manufacturers' durability program.

In sum, EPA does not believe that Congress intended to prohibit reasonable regulations under section 206(d) that set up an adjudicatory process to review and approve manufacturer specific durability programs. EPA believes that the process set up in the regulations is a reasonable exercise of the general authority provided to EPA in section 206(d).

The second issue raised by the comment is whether a manufacturer's durability program is part of making a test such that it is subject to the requirements of section 206(d). However, EPA does not believe that it is necessary to decide this issue. If durability processes are subject to section 206(d), then as described above EPA believes it has the authority to allow an adjudicatory process to determine the specific, detailed portions of a manufacturer's durability program. If the manufacturers' durability processes are not subject to the requirements of section 206(d), then EPA's regulations clearly do not violate that provision. In either case, EPA believes it has authority under section 206(a)(1) to require durability programs as part of the testing performed for purposes of certification. Section 206(a)(1) allows EPA to require testing "in such a manner as he [the Administrator] deem appropriate." This provides EPA the discretion to require

---

[6]EPA's regulations have included this kind of provision for approval of alternative test procedure for many years.

manufacturer specific durability programs as part of the certification process.

2. Comment:

Commenters stated that EPA's proposal is contrary to section 206(e), which obligates EPA to disclose certification information allowing purchasers to determine the "comparative performance" of vehicles. Congress contemplated a form of "environmental" competition among automobile manufacturers. Commenters claim that the competition has not developed, at least in part, due to EPA's decision to "maintain the secrecy of the certification test procedures." EPA Air Docket #A-96-50 item IV-B-10 at 6. Comparisons cannot be made without an accurate understanding of the test procedures employed to generate the certification emission data.

EPA Response:

Section 206(e) provides that:

> The Administrator shall make available to the public the results of his tests of any motor vehicle or motor vehicle engine submitted by a manufacturer under subsection (a) of this section as promptly as possible after December 31, 1970, at the beginning of each model year which begins thereafter. Such results shall be described in such nontechnical manner as will reasonably disclose to prospective ultimate purchasers of new motor vehicles and new motor vehicle engines the comparative performance of the vehicles and engines tested in meeting the standards prescribed under section 7521 of this title.

Section 206(e) of the Clean Air Act requires EPA to make available to the public the results of tests of any motor vehicle or motor vehicle engine submitted by a manufacturer under section 206(a). Congress' intent is clear by looking at the words of the statute. Congress did not require that EPA make available the specific details of test procedures employed to generate the emissions data, or the durability programs employed in the certification process. Congress stated that the results of the tests are to be made available to the public.

EPA makes available all emission test data which are used to make certification compliance determinations as required by section 206(e). Certification levels are posted annually at http:www.epa.gov/OMSWWW/gopher/Cert/Veh-cert/Cert-Tst/. The report contains certification levels (projected emission levels at the end of the useful life

miles of a vehicle) and deterioration factors used to compute the certification levels. Vehicles are described by vehicle model, EPA engine family name, manufacturer family name, number of cylinders, method of fuel system, emission control system, engine code, etc. EPA believes the information is described in a nontechnical manner and provides purchasers with enough information to compare performance of vehicles in meeting emissions standards.

In any case, the regulation adopted today establishes an adjudicatory process to implement section 206(a) and (d), and provide reasonable information to make certification decisions. The regulations adopted here were not proposed under and are not meant to implement section 206(e). The kind of information presented to the public under section 206(d) is not at issue in this rulemaking, as this regulation neither releases information to the public, nor limits what information may or may not be released in the future under section 206(e).

3. Comment:

Commenters suggest that Congress clearly contemplated that EPA would require testing of new motor vehicles or new motor vehicle engines to ensure compliance by the vehicle or engine with applicable emission standards. New motor vehicles are equipped with new components, not with one or more artificially aged components. Because EPA's proposal would allow testing of what is in essence a "hybrid" vehicle which includes such components, EPA's proposal is facially inconsistent with the clear mandate of section 206.

EPA Response:

Section 206(a)(1) states that the Administrator shall test, or require to be tested "in such manner as he deems appropriate," any new motor vehicle or new motor vehicle engine submitted for a certificate of conformity with emission standards. "New motor vehicle" is defined in section 216 as a motor vehicle the equitable or legal title to which has never been transferred to an ultimate purchaser." In section 216 "new motor vehicle engine" is defined similarly.

The authority to require testing "in such a manner as he deems appropriate" under section 206(a)(1) clearly provides EPA with the discretion to allow bench-aging of components as part of the procedures to prepare a vehicle for durability related emissions testing. As described before, it is a reasonable exercise of this broad authority provided in section 206(a)(1) for EPA to determine that bench aging of components may be approved as part of a

manufacturer's durability program. EPA also has general authority under section 301(a)(1) to approve the use of such components on durability test vehicles. ("The Administrator is authorized to prescribe such regulations as are necessary to carry out his function under this chapter.")[7]

4. Comment:

Commenters claim that before EPA can demonstrate that each bench-aging or alternative whole vehicle aging technique complies with the substantive requirements of section 206, the Agency must first provide a complete and thorough description of each bench-aging or alternative whole vehicle-aging technique proposed to be allowed. Without this information, it is simply not possible to comment upon the merit of the alternative testing techniques.

EPA Response:

The comment is based in part on the view that each manufacturer-specific durability process must be adopted through rulemaking. As discussed previously, EPA believes that a regulation setting up an adjudicatory process for approval of manufacturer-specific durability programs is not prohibited by the Clean Air Act and therefore rulemaking for each durability program is not required.

Commenters have been provided an opportunity for meaningful comment in compliance with section 307(d) of the Clean Air Act. EPA believes the provisions of section 307(d) have been satisfied in this rulemaking and the public has been provided an opportunity to comment on the adjudicatory process and durability program requirements. EPA proposed the criteria for establishment of the specific durability program requirements that manufacturers must satisfy for EPA approval of their durability program. These criteria enable EPA to evaluate the expected in-use deterioration of these durability groups, the parameters of the durability demonstration, and the compliance determination. EPA described in the preamble the kinds of information generated and durability programs used under the current RDP-I

---

[7]In addition, this is not inconsistent with the definition of "new motor vehicle" in section 216. That definition looks at when title is received by the ultimate purchaser, and does not place any restriction related to whole vehicle aged or bench aged parts. A test vehicle would meet the definition of a new vehicle whether it has bench aged or whole vehicle aged parts, as long as title has not transferred to the ultimate purchaser.

regulations. In addition, EPA placed in the docket a draft technical support document outlining manufacturer data and other information about the current revised durability program (RDP-I). EPA Air Docket #A-96-50, item III-B-2. Topics included (1) a discussion of the correlation procedures used by the Agency to assure that accurate tests are run by manufacturers, (2) a discussion of the information collected from manufacturers which is not directly used in reaching the decision to grant a Certificate of Conformity, (3) a discussion of the effect of ambient weather patterns (warm versus cold climates) on in-use deterioration and recalls in support of the CAP2000 requirement that some vehicles tested be recruited from cold weather locales, and (4) a discussion of the rationale used in proposing a durability group concept for CAP2000 rather than the current engine family definition. The comment period was extended to provide the public with time to analyze the support document. EPA believes the information provided to the public has allowed opportunity for meaningful comments.

5. Comment:

A commenter claims that EPA's statement in the NPRM that "most manufacturers have demonstrated that essentially no engine out deterioration is experienced in their current product" is one of the "basic premises underlying its proposal" for manufacturer-specific durability programs. EPA Air Docket #A-96-50 item IV-D-10 at 11, citing 63 FR 39658

EPA Response:

The NPRM language has not been characterized in its proper context. EPA's assertion in the NPRM is that new "durability groups" for exhaust emissions combine vehicles which are likely to exhibit similar exhaust emission deterioration over their useful lives. In the past "engine families" were grouped by engine-based parameters because most emission reductions were expected to occur through modifications to the engine operating characteristics. As described in the NPRM, today's vehicles accomplish most emission control through catalytic conversion. In essence, engine-out deterioration is not experienced. Therefore, the past groupings (engine-based parameters that affect engine-out emissions) are less useful for evaluating the emissions durability of today's vehicle technology. EPA is requiring manufacturers to group vehicles based on catalyst parameters for more effective groupings.

Broadening the grouping criteria for durability demonstrations, by itself, may add some variability in

emissions as compared to the current engine family definition; however, the Agency believes that the proposed broader durability groups coupled with worst case durability vehicle selections and in-use verification program would comprise a more accurate and effective emission control program than the current procedures and result in significant environmental benefits.

The accuracy of EPA's statement is discussed in the next response to comment.

6. Comment:

The commenter expressed several concerns about engine-out deterioration from the data presented in the Technical Support Document (TSD). In particular they noted: (1) Using General Motors' data, 4 of 9 vehicles display deterioration in engine-out emission with respect to at least one of the emission constituents. (2) Using Chrysler's data, 28 of 34 vehicles display deterioration in engine-out emission with respect to at least one of the emission constituents. The commenter expressed further concern that most of the Chrysler data is on Tier 0 vehicles. (3) Based on Table 1 of the TSD, the commenter interprets that Toyota has presented data to the Agency that their engines show significant engine-out deterioration. Based on this data the commenter takes issue with the Agency's statements in the NPRM that "most manufacturers have demonstrated that essentially no engine out deterioration is experienced on their current product".

The commenter also expressed concerns about bench aging versus whole vehicle aging. In particular they noted: For Honda, Ford and Toyota (which they indicate have approved track and bench procedures) 8 of 8 vehicle programs have no failing data; however for GM (which used exclusively a bench aging cycle) 2 of 8 vehicle programs experienced one or more test failures. Based on this data, the commenter concludes that this data "suggests that bench aging may not be as predictive as testing techniques which rely, at least in part, on whole vehicle testing".

The commenter was concerned that all failing test data reported (6 of 131 tests) occurred for GM vehicles which used a bench procedure. The commenter noted that the data from Ford, Honda, and Toyota showed no emission failures. The commenter interpreted that Ford, Honda, and Toyota all used track procedures (in whole or part) and therefore track procedures were better than bench procedures.

Essentially the same comment as outlined above is provided by another commenter who references the concerns of Ethyl made in their comments to the NPRM.

EPA Response:

The Agency presented the results of the in-use verification data collected under RDP-I in the TSD. The data showed that the certification standards were met for 125 of 131 tests run. The data from bench aging programs does not support the view that whole vehicle aging is better at representing in-use deterioration than bench aging of components. First, contrary to commenters statement, the Ford data was a bench procedure, not a track procedure.

The commenter focuses on the fact that several of the engine-out data points showed measurable deterioration, i.e., that not all of the data shows no engine-out deterioration. This variety in the data, however, is a normal expectation. When experimental data is collected, it is natural that the observed value will differ from the true value for the population due to test-to-test, lab-to-lab, and vehicle-to-vehicle variability. If the true population mean were zero (for example: the hypothesis that engine-out deterioration is zero), then due to this variability one would expect half the measurements to be positive (actual measured data indicates some positive deterioration), while the other half would be negative. The data present by Chrysler and GM show a better than expected distribution of measurements which support the hypothesis that the true mean of engine-out emissions deterioration is zero.

The commenter indicated that Toyota provided data indicating that their engines showed significant engine out emission deterioration based on their reading of Table 1 of the TSD. This observation is incorrect. In fact, the table reports that Toyota did not supply data indicating that their engines experienced essentially no engine-out deterioration. The table entry does not mean that Toyota supplied data indicating that their engines experienced significant engine-out emission deterioration. In its discussions with the Agency, Toyota presented the opinion that Toyota engines did not have significant engine-out deterioration. The table indicates only that there was no submission of supporting data.

The commenter was concerned that most of the Chrysler data is on Tier 0 vehicles and was concerned that Tier 1 vehicles may perform differently. The data presented by Chrysler on Tier 1 vehicles showed that engine-out emissions increased over 100,000 miles by -2.6% for HC, 0.8% for CO, and -8.6% for NOx. Although a smaller data set, Chrysler's Tier 1 data also show essentially no engine-out deterioration and for CO a much smaller rate of deterioration (0.8% versus 4.7%) with Tier 1 technology.

EPA disagrees with commenters claim that "significant

deterioration in engine-out emissions can (and, in fact, does) occur over time." See comment at 12. The Chrysler data shows the that the average engine-out emission deterioration was -4.3% for HC, 4.7% for CO, and -11.9% for NOx; 62 of 102 deterioration measurements were zero or negative. The GM engine-out data was provided on nine vehicles; 24 of 27 emission deterioration measurements showed little or no emissions increase.

Second, the data for Honda and Toyota was largely at the low mileage point; only one class was run at the second mileage point and none at the high mileage point. Because emission levels typically increase with mileage it is not unexpected that there were more failures detected on the GM program which included high mileage tests. In any case the degree of in-use failures is extremely small (4.5%) and does not rise to a level that raises concerns about the representativeness of any type of durability cycle. In fact the low levels of failures from GM and other in-use data substantiates the validity of the RDP-I programs to accurately represent in-use emission deterioration for a vast majority of the vehicles.

Under both the proposed and finalized rule manufacturers are required to make a demonstration that their durability process will "effectively predict emission compliance for candidate in-use vehicles."[8] The main concern of the Agency is that a manufacturer's durability program will, as a whole, effectively predict in-use emission levels for the significant majority of vehicles. It is important that the durability procedure predict deterioration of the entire vehicle emission control system, not any one individual element of design. To achieve this, the manufacturer may design a durability program which ages catalysts and oxygen sensors sufficiently to account for deterioration from <u>all</u> sources (including any expected deterioration from engine-out emissions). Consequently, a properly designed bench aging program could still be used to predict in-use emissions even when there would be a significant amount of engine-out deterioration.

The Agency is adopting several significant safeguards to assure that the durability process will effectively predict in-use compliance.

First, the Agency will review and approve each durability process. The Agency is requiring, under 40 CFR 1823-01 "analysis and/or data demonstrating the adequacy of the manufacturer's durability processes to effectively

---

[8] Text from 40 CFR 86.1823-01(b)(1).

predict emission compliance for candidate in-use vehicles." During this review the Agency will evaluate the likelihood that the durability process will reflect in-use deterioration of a significant majority of candidate in-use vehicles which cover the breadth of the manufacturer's product line to be covered by the durability process.

Second, and most important, the Agency has required manufacturers to collect in-use verification data for each test group. There are several in-use test groups within a durability group: the Agency predicts there will be 2 to 4 test groups per durability group. The in-use data will identify potential problems which will allow more focused Agency recall investigations. It will also allow manufacturers to improve the predictive capability of their durability process.

Lastly, when the in-use verification data exceeds a threshold, the manufacturer must re-evaluate and/or improve their durability process. The Agency also may question the representativeness of a durability process which does not exceed these threshold values. Individual test group data may be pooled into a single durability group analysis to increase the statistical confidence of the conclusions of the analysis. It is expected that manufacturers will use the results of the in-use verification data to continually improve the predictive capability of their durability process.

III. Projected Impacts

A. Environmental Impacts

EPA anticipates that the new requirements should result in some unquantifiable environmental benefits because of improvements to durability demonstration requirements, and because of the potential to identify and improve upon vehicle emission performance based on the in-use verification test results.

B. Economic Impacts

The Agency estimates that manufacturers should realize a total annual savings of about $55 million as a direct result of today's proposal. These figures include savings gained from streamlined certification activities, such as fewer durability and emission data demonstrations and reduced reporting burden, and accounts for the new costs incurred by the proposed in-use verification testing requirements. A detailed discussion and table of costs/savings are contained in the Support Document to this proposed regulation and are filed in the Docket.

IV. Public Participation

The Agency held a Public Hearing for the proposed rule on August 10, 1998, where 4 people presented oral testimony. The public comment period for the proposed rule expired on September 8th, but was extended through September 24th to provide additional time to submit written comments. A total of 21 comments were received. EPA's analysis and responses to those comments are contained in a separate Response to Comments document located in the Docket.

V. Administrative Requirements

A. Administrative Designation and Regulatory Analysis

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the Agency must determine whether the regulatory action is "significant" and therefore subject to OMB review and the requirements of the Executive Order. The Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities;

(2) create a serious inconsistency or otherwise

interfere with an action taken or planned by another agency;
(3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or,
(4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

It has been determined that this rule is not a "significant regulatory action" under the terms of the Executive Order 12866 and is therefore not subject to OMB review.

B. Regulatory Flexibility Act

The Regulatory Flexibility Act, 5 U.S.C. §§ 601-612 generally requires an agency to conduct a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small not-for-profit enterprises, and small governmental jurisdictions. This final rule will not have a significant impact on a substantial number of small entities because it relates to requirements applicable only to manufacturers of motor vehicles, a group which does not contain a substantial number of small entities. See 1996 World Motor Vehicle Data, AAMA, pp. 282-285.

C. Paperwork Reduction Act

The Paperwork Reduction Act, 44 U.S.C. § 3501 et seq., requires agencies to submit for OMB review and approval, federal requirements and activities that result in the collection of information from ten or more persons. Information collection requirements may include reporting, labeling, and recordkeeping requirements. Federal agencies may not impose penalties on persons who fail to comply with collections of information that do not display a currently valid OMB control number.

The Office of Management and Budget (OMB) has approved the information collection requirements contained in this final rule under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. and has assigned OMB control number 2060-0104. An Information Collection Request (ICR) document has been prepared by EPA (EPA ICR No. 1872.01 & 0783.38) and a copy may be obtained from Sandy Farmer by mail at OPPE Regulatory

Information Division; U.S. Environmental Protection Agency (2137); 401 M St., S.W.; Washington D.C. 20460, by email at farmer.sandy@epa.gov, or by calling (202)260-2740. A copy may also be downloaded off the internet at http://www.epa.gov/icr.

The information collection burden associated with this rule (testing, record keeping and reporting requirements for both certification and fuel economy activities) is estimated to total 446,783 hours annually for the manufacturers of light-duty vehicles and light-duty trucks. The hours spent annually on information collection activities by a given manufacturer depends upon manufacturer-specific variables, such as the number of test groups and durability groups, production changes, emissions defects, and so forth.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An Agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR Part 9 and 48 CFR Chapter 15. EPA is amending the table in 40 CFR Part 9 of currently approved ICR numbers issued by OMB for various regulations to list the information requirements contained in this rule.

D. Unfunded Mandates Reform Act

Section 202 of the Unfunded Mandates Reform Act of 1995 (signed into law on March 22, 1995) requires that EPA prepare a budgetary impact statement before promulgating a rule that includes a federal mandate that may result in expenditure by state, local and tribal governments, in aggregate, or by the private sector, of $100 million or more in any one year. Section 203 of the Unfunded Mandates Reform Act requires EPA to establish a plan for obtaining input from and informing, educating and advising any small

governments that may be significantly or uniquely affected by the rule.

Under section 205 of the Unfunded Mandates Act, EPA must identify and consider a reasonable number of regulatory alternatives before promulgating a rule for which a budgetary impact statement must be prepared. EPA must select from those alternatives the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule, unless EPA explains why this alternative is not selected or the selection of this alternative is inconsistent with law.

Because this proposed rule is expected to result in the expenditure by state, local and tribal governments or private sector of less than $100 million in any one year, EPA has not prepared a budgetary impact statement or specifically addressed selection of the least costly, most cost-effective or least burdensome alternative. Because small governments will not be significantly or uniquely affected by this rule, EPA is not required to develop a plan with regard to small governments.

E. Congressional Review Act

The Congressional Review Act, 5 U.S.C. § 801 et seq., as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the Federal Register. This rule is not a "major rule" as defined by 5 U.S.C. § 804(2).

F. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 ("NTTAA"), Pub. L. No. 104-113, § 12(d)(15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless doing so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (such as materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

This final rule does not involve consideration of any new technical standards. However, this final rule adopts without change certain technical standards which are voluntary consensus standards, including six Society of Automotive Engineers (SAE) procedures, one International Standards Organization (ISO) procedure, and one American Society for Testing and Materials (ASTM) procedure.

G. Protection of Children

Executive Order 13045, entitled "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997) applies to any rule that: (1) is determined to be "economically significant," as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, the Agency must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

This final rule is not subject to Executive Order 13045 because it is not economically significant as defined in E.O. 12866, and because the Agency does not have reason to believe environmental health or safety risks addressed by this action present a disproportionate risk to children because no new emission standards are being promulgated.

H. Enhancing the Intergovernmental Partnership

Under Executive Order 12875, EPA may not issue a regulation that is not required by statute and that creates a mandate upon a State, local or tribal government, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by those governments, or EPA consults with those governments. If EPA complies by consulting, Executive Order 12875 requires EPA to provide to the Office of Management and Budget a description of the extent of EPA's prior consultation with representatives of affected State, local and tribal governments, the nature of their concerns, copies of any written communications from the governments, and a statement supporting the need to issue the regulation. In addition, Executive Order 12875 requires EPA to develop an effective process permitting elected officials and other representatives of State, local and tribal governments "to provide meaningful and timely input in the development of regulatory proposals containing significant unfunded mandates."

Today's rule does not create a mandate on State, local or tribal governments. The rule does not impose any enforceable duties on these entities. This rule will be implemented at the federal level and imposes compliance obligations only on private industry. Accordingly, the requirements of section 1(a) of Executive Order 12875 do not apply to this rule.

I. Consultation and Coordination with Indian Tribal Governments

Under Executive Order 13084, EPA may not issue a regulation that is not required by statute, that significantly or uniquely affects the communities of Indian tribal governments, and that imposes substantial direct compliance costs on those communities, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by the tribal governments, or EPA consults with those governments. If EPA complies by consulting, Executive Order 13084 requires EPA to provide to the Office of Management and Budget, in a separately identified section of the preamble to the rule, a description of the extent of EPA's prior consultation with representatives of affected tribal governments, a summary of the nature of their concerns, and a statement supporting the need to issue the regulation. In addition, Executive Order 13084 requires EPA to develop an effective process permitting elected officials and other representatives of Indian tribal governments "to provide meaningful and timely input in the development of regulatory policies on matters that significantly or uniquely affect their communities."

Today's rule does not significantly or uniquely affect the communities of Indian tribal governments. This rule will be implemented at the federal level and imposes compliance obligations only on private industry. Accordingly, the requirements of section 3(b) of Executive Order 13084 do not apply to this rule.

VI. Statutory Authority

Sections 203, 206, 207, 208 and 217 of the Clean Air Act provide EPA with the authority to revise the current emissions compliance procedures as described in this proposal. EPA’s authority to make the major revisions found in CAP 2000 is based largely on sections 206 and 208(a) of the Act. Section 206 provides EPA with the authority to test, or require to be tested in such manner as the Agency deems appropriate, any new motor vehicle to determine whether the vehicle conforms with applicable emissions

standards. EPA accordingly has the broad authority to streamline the current certification process to improve the efficiency of the process. Section 208(a) further requires manufacturers to establish and maintain records, to conduct tests, and to submit information that EPA may reasonably require to determine whether a manufacturer is in compliance with Title II of the Act and it implementing regulations, or to otherwise carry out the provisions of Title II. This includes information needed by EPA to make certification decisions, to determine whether vehicles built and sold are covered by the certificate, and to ensure that defeat devices are not used. Section 208(a) also provides EPA with the authority to require post-production testing of vehicles by manufacturers to provide a means of monitoring the emissions performance of vehicles driven under real-world conditions. Such testing serves as a check on the accuracy of the certification procedures and on the levels of in-use compliance with applicable emissions standards.

List of Subjects

40 CFR Part 85

Environmental protection, Confidential business information, Imports, Labeling, Motor vehicle pollution, Reporting and recordkeeping requirements, Research, Warranties.

40 CFR Part 86 and 88

Environmental protection, Administrative practice and procedure, Confidential business information, Labeling, Motor vehicle pollution, Reporting and recordkeeping requirements.

40 CFR Part 600

Electric power, Energy conservation, Gasoline, Labeling, Motor vehicles, Reporting and recordkeeping requirements, Administrative practice and procedure, Fuel economy.

Dated:

_____

Carol M. Browner, Administrator.